

FEDERAL GRANT OPPORTUNITIES

updated 09/25/09

new opportunities or changes highlighted

Open grants & deadlines:

- **Building America Energy Efficient Housing Partnerships** *(August 27, September 30)*
- **Federal Loan Guarantees for Projects that Employ Innovative Energy Efficiency, Renewable Energy, & Advanced Transmission & Distribution Technologies** *(September 14, 2009-August 24, 2010; November 13, 2009-December 31, 2010)*
- **Federal Loan Guarantees for Electric Power Transmission Infrastructure Investment Projects** *(September 14, October 26, 2009—January 25, 2010)*
- **Pathways Out of Poverty** *(September 29)*
- **Expansion of Infrastructure for Higher Ethanol Blends** *(October 4)*
- **Local Energy Assurance Planning (LEAP) Initiative** *(October 8)*
- **Impact Aid Discretionary Construction Program** *(October 8)*
- **Green Your School** *(October 9)*
- **Emerging Frontiers in Research & Innovation 2010** *(October 9, November 13, March 31, 2010)*
- **Solar America Cities Technical Outreach** *(October 15)*
- **Baseload Concentrating Solar Power Generation** *(October 15)*
- **Fall 2009 EPA Science to Achieve Results (STAR) Fellowships for Graduate Environmental Study** *(October 22)*
- **Smart Grid Investment Grant Program** *(October 23, November 4; February 10, March 3)*
- **Small Business Technology Transfer Program Phase I Solicitation FY 2010** *(November 17)*
- **Annual Phase I Small Business Innovation Research (SBIR) Small Business Technology Transfer (STTR)** *(November 20, 2009)*
- **Workforce Training for the Electric Power Sector** *(November 30, 2009)*
- **CHE-DMR-DMS Solar Energy Initiative** *(December 8, 2009; March 10, 2010)*

- **7th Annual P3 Awards: A National Student Design Competition for Sustainability Focusing on People, Prosperity, & the Planet**
(January 4, 2010)

ARRA – Building America Energy Efficient Housing Partnerships

FOA # DE-FOA-0000099

- Application due for Area 1: August 27, 2009
- Application due for Area 2: September 30, 2009
- \$2.5 million floor; no ceiling
- Eligible applicants: All domestic entities, but federal agencies, FFRDC contractors, and nonprofits as described in section 501(c)(4) of IRC of 1986 that engaged in lobbying after 12/31/95
- 20% cost share of total allowable cost of project
- Visit <http://www.fedconnect.net/> for additional information

- *Area of Interest 1: Building America Teams*
 - Industry teams to continue partnerships Building America has established to implement research and technical support programs for new and existing homes
 - \$10 million expected to be available
 - 2-3 awards expected
 - Up to \$5 million per year for up to 5 years
 - 5 year period of performance

- *Area of Interest 2: Building America Retrofit Teams*
 - Industry teams to stimulate the existing home retrofit market through research and technical support to increase the efficiency gains and reduce the cost of retrofits
 - \$15 million expected to be available
 - 2-4 awards expected
 - Up to \$5 million per two year award
 - 2 year period of performance

ARRA - Federal Loan Guarantees for Projects that Employ Innovative Energy Efficiency, Renewable Energy, & Advanced Transmission & Distribution Technologies

Funding Opportunity Announcement (FOA) # DE-FOA-0000140

- Application due dates:
 - Parts I & II submission dates depend on rounds
 - Part I: September 14, 2009 – August 24, 2010
 - Part II: November 13, 2009 – December 31, 2010
- Submission of applications for loan guarantees under Title XVII of the Energy Policy Act of 2005 in support of debt financing for projects in the U.S. that employ energy efficiency, renewable energy, and advanced transmission and distribution technologies that constitute new or significantly improved technologies that are not a commercial technology
- DOE will make up to \$8.5 billion in loan guarantee authority available
- Despite the due dates, the solicitation will remain open until the aggregate \$8.5 billion in loan guarantee authority is fully obligated
- Visit <http://www.fedconnect.net/> to view the full FOA, and consult <http://www.energy.gov/>, <http://www.whitehouse.gov/omb/> or <http://www.recovery.gov/> for additional information
- Only 3 categories of projects that begin construction no later than 9/30/11 are eligible under Section 1705 of Title XVII and may have their credit subsidy costs covered by appropriated funds under the Recovery Act
 1. Renewable energy systems, including incremental hydropower, that generate electricity or thermal energy and facilities that manufacture related components
 2. Electric power transmission system projects, including upgrading projects
 3. Leading edge biofuel projects that will use technologies performing at the pilot or demonstration scale that the Secretary determines are likely to become commercial technologies and will produce transportation fuels that substantially reduce life-cycle greenhouse gas emissions compared to other transportation fuels
- Eligible projects in categories listed below and which fall within 1 of the 2 distinct project types described:
 1. Alternative fuel vehicles
 2. Biomass
 3. Efficient electricity transmission, distribution, and storage
 4. Energy efficient building technologies and applications
 5. Geothermal
 6. Hydrogen and fuel cell technologies
 7. Energy efficiency projects
 8. Solar
 9. Wind & hydropower

- Technology categories for 1705 eligible projects are limited to renewable energy systems projects, electric power transmission systems projects, and leading edge biofuels projects
- Per DOE, eligible projects under categories 1, 4, 6, & 7 generally do not constitute 1705 eligible projects for which the credit subsidy costs may be paid for out of funds appropriated under the Recovery Act to pay for the costs of loan guarantee issued under the Section 1705 program
- Project types: manufacturing or stand-alone; see FOA for list of primary goals and objectives for these project types

ARRA – Federal Loan Guarantees for Electric Power Transmission Infrastructure Investment Projects

FOA # DE-FOA-0000132

- Submission due dates:
 - Part I: September 14, 2009
 - 1st Round Part II: October 26, 2009
 - 2nd Round Part II: December 10, 2009
 - 3rd Round Part III: January 25, 2010
- Purpose: Submission of applications for loan guarantees from U.S. Department of Energy under Section 1705 of Title XVII of the Energy Policy Act of 2005 in support of debt financing for transmission infrastructure investment projects in the U.S.
- ARRA provides that \$5,965,000,000 in appropriated funds be made available until expended to pay credit subsidy costs of loan guarantees issued under Section 1705 of Title XVII for certain renewable energy systems, electric transmission systems, and leading edge biofuels projects
- Eligible projects
 - Shall consist of a complex electric transmission systems project located in U.S. that utilizes a commercial technology; is reasonably likely, at the time of the submission of the Part I application, to commence construction on/before 9/30/11
 - Project cannot be financed from private sources on standard commercial terms
 - Project must meet at least one of the following criteria:
 - Involves new or upgraded lines of at least 100 mi. of 500 kilovolts or higher or 150 mi. of 345 kV
 - Project has at least 30 mi. of transmission cable under water
 - Project has high voltage direct current (DC) component
 - Project is a major interregional connector
 - Project designated as a National Interest Electrical Transmission Corridor by DOE under EPOA of 2005
 - Project is associated with offshore generation
 - Project mitigates a substantial reliability risk for a major population center
 - A set of improvements to an integrated system within a state or region that together aggregate to meet criteria
 - Please see FOA for additional requirements and for information on eligible lenders

ARRA – Pathways Out of Poverty

FOA # SGA/DFA PY 08-19

- Application due by September 29, 2009
- Webinar on July 14, 2009 at <http://www.workforce3one.org/>
- \$150 million expected available
 - \$3 million - \$8 million available for national grantees (see description below)
 - \$2 million - \$4 million available for local grantees
- Cost share is not required, but leveraged resources are strongly encouraged
- Visit <http://www.grants.gov/> for additional information
- 2 types of applicants to be funded:
 - National non-profits with networks of local affiliates or coalition members
 - Considered national if:
 - Deliver services through networks of local affiliates, coalition members, or other established partners like faith-based organizations
 - These partners have the ability to provide services in 4 or more states
 - Must serve communities located in at least 2 states, with a total of 3-7 communities served
 - Will be required to fund sub-grants or sub-contracts in each communities
 - Local entities
 - Considered local if:
 - Public organization such as community colleges or workforce development boards or private non-profits whose area is limited to a single sub-state area
 - Must propose a project that serves a single community
- Target population are workers affected by significant auto industry restructuring
- Grant to prepare those individuals for careers in:
 - Energy efficient building construction and retrofit industries
 - Renewable electric power industries
 - Energy efficient and advanced drive train vehicle industry
 - Biofuels
 - Deconstruction and materials use
 - Energy efficient assessment industry serving residential, commercial, or industrial sectors
 - Manufacturers that produce sustainable products using environmentally sustainable processes and materials
- Applicants may propose strategies that train individuals for the following occupations: transportation, green construction, environmental protection, sustainable agriculture (including healthy food production), forestry, and recycling and waste reduction

- Eligible applicants
 - Must have experience serving at least one of the following groups:
 - Unemployed individuals
 - High school dropouts
 - Individuals with criminal records
 - Disadvantaged individuals within areas of high poverty
- Must propose strategic partnerships (1 entity from each of the 5 categories)
 - Non-profits that have direct access to targeted populations
 - Public workforce investment system
 - Education and training community
 - Public and private employers and industry-related organizations
 - Labor organizations
- Strongly encouraged to involve:
 - Public housing agencies
 - Community Action Agencies implementing DOE's Weatherization Assistance Program
 - Organizations implementing ARRA funds that will create or support jobs in energy efficiency or renewable energy industries
 - National, state, or local foundations that focus on assisting participants served through project
 - State and local social service agencies that provide services to those individuals
- Allowable activities include:
 - Classroom occupational training
 - On-the-job training activities
 - Registered apprenticeship and pre-apprenticeship programs
 - Internships
 - Customized training
 - Basic skills – adult basic education, ESL, job readiness
 - Job search and placement services
 - Case management services

ARRA – Expansion of Infrastructure for Higher Ethanol Blends

FOA # DE-FOA-0000125

- Application due by October 4, 2009
- Visit <http://www.fedconnect.net/> for additional information.
- 4-year period of performance
- Purpose: to facilitate the increased use of higher ethanol blends up to E85 through infrastructure expansion and targeted outreach
- Eligibility
 - Institutions of higher education
 - Non- and for-profit entities
 - State and local governments
 - Consortia of entities 1-3
- Cost share of 50% for Topic Area 1; no cost share for Topic Area 2 (but strongly encouraged)
 - For ARRA recipients: non-federal cost share for demonstration and commercial application activities must be at least 25% of total allowable costs for private industry recipients; the non-federal cost share must be at least 10% for academic institutions, non-profit organizations, Indian Tribes or Tribal Energy Resource Development Groups, and state and local governments
- *Topic Area 1: Refueling Infrastructure for Higher Ethanol Blends*
 - Projects will expand the infrastructure at retail fuel locations to accommodate ethanol blends up to E85
 - Projects may include modifications, upgrades, or expansion of existing infrastructure at retail stations, or the creation of new infrastructure to accommodate higher ethanol blends up to E85
 - Projects: upgrades to existing dispensing infrastructure, addition of new dispensing infrastructure, modifications or replacement of underground storage tanks, or the addition of increased storage capacity for ethanol or ethanol blends at a retail station
 - Projects that include electronic card readers with updated product codes to track the amount of ethanol dispensed will receive higher consideration
 - Proposed projects must result in a minimum of additional 5 dispensers or pumps capable of dispensing ethanol blends up to E85
 - Corridors that provide fueling no more than 100 mi. apart and projects that concentrate the availability of blends up to E85 at a targeted geographic area are strongly encouraged
 - Up to 25% of federal portion of funding in individual projects may be used for permanent signage (highway or street level directional signs)
 - \$3.5 million expected for Area 1 at \$50,000 - \$200,000 per project
 - Cost share of 50% required

- *Topic Area 2: Outreach for Higher Ethanol Blends*
 - Project seeks to facilitate the development of a national campaign to inform the public on the benefits, safety, and use requirements of higher ethanol blends up to E85
 - Projects that exhibit potential for future growth without federal funding are encouraged
 - Projects that include materials as part of the dispenser display showing fuel energy content, mileage impact, costs per mile, and greenhouse gas reductions are encouraged
 - DOE is interested in projects that include a component focused on providing accurate, unbiased information to the media and public
 - \$2 million expected for Area 2 at \$250,000 - \$1 million per project

ARRA – Local Energy Assurance Planning (LEAD) Initiative

FOA # DE-FOA-0000098

- Application due by October 8, 2009
- \$10.5 million expected to be available
- \$60,000 floor; \$300,000 ceiling
- 50 expected awards, based on population
- No cost share
- Objectives
 1. To strengthen and expand local government energy assurance planning and resiliency
 2. To reduce impacts from energy supply disruptions
 3. To create jobs
- Focus on building local energy assurance capability to allow cities to better coordinate and communicate state-wide, regionally, and with one another on energy security and reliability
- See FOA at <http://www.fedconnect.net/> for considerations while proposing projects
- Eligible applicant is a U.S. city that is eligible if:
 - City government is included in latest U.S. Census of Governments as a currently incorporated government
 - City government has governance structure with elected official and governing body
 - City government has authority to implement eligible activities under FOA

ARRA – Impact Aid Discretionary Construction Program

- Application due by October 8, 2009
- Visit <http://www.grants.gov/> for additional information
- Applications available at <http://e-grants.ed.gov/>
- \$59.4 million estimated available
- 24 expected awards in \$50,000 - \$5 million range
- 36 month period of performance

- Purpose: to provide grants for emergency repairs and modernization of school facilities to certain local educational agencies that submitted timely applications eligible for funding under either Section 8002 or Section 8003 of the Elementary Secondary Education Act of 1965 as amended for Fiscal Year (FY) 2008.
- In addition to this requirement, the total assessed value of real property available that may be taxed for school purposes should be less than \$100 million or has an average assessed value per pupil less than the state average assessed value per pupil
- To consider in the application:
 - The need for project/severity of problem to be addressed by the project
 - How the problem threatens the health or safety of the occupants
 - The extent to which project will use energy efficient and recyclable materials, and the cost savings associated with these materials
 - See the announcement for additional considerations.

Green Your School

- NOT a federal government opportunity, but offered through the Student Conservation Association
- Visit <http://www.thesca.org/green-your-school/> for additional information
- 3 awards
- Projects must have been started after August 1, 2008
- Submission begins April 1, 2009
- Submission ends October 9, 2009
- Winners to be announced November 15, 2009
- Project requirements
 - Must be completed by a student
 - Has or will improve the environmental health of the school
 - Is sustainable
 - Is of high quality
 - Has engaged the community

Emerging Frontiers in Research & Innovation (EFRI) 2010

- Letter of intent due October 9, 2009
- Preliminary proposal due November 13, 2009
- Full proposal due March 31, 2010
- Information webcast on September 17, 2009 at <http://www.nsf.gov/eng/efri/>
- See <http://www.nsf.gov/pubs/2009/nsf09606/nsf09606.pdf>
- \$29 million expected to be available in FY 2010, pending the availability of funds
 - Each team may receive up to \$500,000 per year up to 4 years, pending availability
 - 14, 4-year awards expected
- Cost sharing not required
- Eligibility: U.S. academic institutions which perform research and with degree-granting educational programs in disciplines normally supported by NSF; these organizations are eligible to be the lead organization
 - Applicants are encouraged to form synergistic collaborations with government labs, industrial researchers, and scientists and engineers at foreign organizations where appropriate
- Program seeks proposals with potentially transformative ideas that represent an opportunity for a significant shift in fundamental engineering knowledge with a strong potential for long-term impact on national needs or a grant challenge
- *Renewable Energy Storage (RESTOR)*
 - Fundamental experimental and theoretical research needed to develop a transformative understanding of transport and reaction mechanisms and to uncover the underlying principles that govern the complex and interrelated mechanisms of electron and ion transfers, material decomposition, and energy conversion processes for large scale storage
 - 5 elements to be addressed:
 - R1: Cost effectiveness and technical feasibility of a large scale (10 MW minimum) energy storage capability of a solar and/or wind energy conversion site
 - R2: Identification of key existing barriers in achieving goals in R1
 - R3: Multidisciplinary approaches needed to overcome the barriers identified in R2 in order to achieve the goals in R1, including alternative/contingency plans when the main proposed approaches fail. Interdisciplinary synergies in the form of well-integrated systems approach to research are vital.
 - R4: Outcomes and impacts the proposed work will have on the EFRI topic as well as other applications
 - R5: Potential impact of the proposed work to address major societal needs, to revolutionize the area of large scale energy storage/generation, as well as to improve U.S. competitiveness in the global economy through advanced technology development

- *Science in Energy & Environmental Design (SEED): Engineering Sustainable Buildings*
 - Engage engineers, architects, and physical, biological, and social scientists to develop fundamental concepts to create the breakthrough innovations in building materials, models, and theories that will lay the foundation for the next generation of advanced sustainable building systems
 - Breakthrough research needed in: Materials and Sensing, Modeling and Simulation, and Concepts for Anatomy and Interdependence
 - Required SEED Elements:
 - S1: Define a unifying intellectual focus for synergistic innovation involving interdisciplinary research on the EFRI SEED topic or their integration
 - S2: Provide a unique framework through which components of diverse disciplines can connect and relate to each other
 - S3: Address the need for interdisciplinary research
 - S4: Address the anticipated research outcome and questions on how the resulting new discoveries will provide answers to problems leading to transformative science for next generation sustainable buildings
 - S5: Identify new motivations, new instruments and tools, and new validation vehicles for advanced sustainable vehicles

Solar America Cities – Technical Outreach

FOA # DE-FOA-0000086

- Application due by October 15, 2009
- Expected \$10.5 million to be available, allocated in phases over five years
- \$6 million ceiling for phase 1; \$500,000 floor
- DOE expects one award, but may consider multiple awards
- Eligible applicants include all U.S. domestic entities except for FFRDC contractors, and non-profits as described in Internal Revenue Code of 1986 that engaged in lobbying activities after 12/31/95
- Cost sharing is not required
- Visit <http://www.fedconnect.net/> for additional information
- Suggested reading: *Solar Powering Your Community: A Guide for Local Governments* (<http://www.solaramericacities.energy.gov/resources>)
- DOE intends to select 1 or more partner organizations to provide a maximum number of local governments with actionable information that will enable them to accelerate solar energy deployment
- The recipient will proactively address the solar-related information needs of significant local markets and provide a mechanism by which local governments can receive and share information on solar energy
- A comprehensive approach is needed to include solar regulations, financial incentives, workforce training, and utility and community engagement
- Potential activities include:
 - Working to develop sets of solar-related information most relevant to local governments
 - Provide strategic information on solar energy to local governments and stakeholders
 - Create effective forums for sharing lessons and best practices developed by DOE's 25 Solar America Cities with other local governments
 - Targeted presentations for local governments

Baseload Concentrating Solar Power Generation

FOA # DE-FOA-0000104

- Application due by October 15, 2009
- \$15 million expected to be available in Fiscal Year 2010 and \$19.5 million - \$37.5 million to be available in FY 2011 – FY 2014
- Ceiling based on topic and phase; no floor
- Eligible applicants: higher education institutions, non- and for-profit entities, state and local governments, Indian Tribes or Tribal Energy Resource Development Organizations, and consortia consisting of any of the above entities
- Visit <http://www.fedconnect.net/> for additional information
- Objective: To develop and evaluate concentrating solar power (CSP) components and/or systems that could lead to development of utility-scale baseload CSP power plants with a capacity factor of 75% capable of generating electricity at costs competitive with fossil-fired generators, and estimated 8-9 cents/kWh adjusted for real 2009 dollars

- *Topic 1: Research & Development (R&D) Concept and Component Feasibility Studies*
 - Research one or more approaches to achieving the baseload CSP power generation through novel concepts or advance in key system components

- *Topic 2: Baseload CSP System Study*
 - Applicants will have a specific CSP system approach for which they propose to perform a feasibility analysis, engineering design, and prototype testing

Fall 2009 EPA Science to Achieve Results (STAR) Fellowships for Graduate Environmental Study

FON (Funding Opportunity Number) # EPA-F2009-STARI1 (Green Engineering/Building/Chemistry/Materials)

- Application due by October 22, 2009
- This is a U.S. Environmental Protection Agency (EPA) program that offers graduate fellowships for master's & doctoral level students in environmental fields of study
- See <http://www.grants.gov/> or http://www.epa.gov/ncer/rfa/2009/2009_star_gradfellow.html for additional information
- \$4.5 million expected to be available for all awards
- 120 expected awards at \$37,000 per year per fellowship
- Cost share not required
- Master's level – 2 year period of performance; 3 year period of performance for doctoral level (usable for 4 years)
- Eligibility:
 - Must attend a fully-accredited U.S. college or university
 - Must be a citizen of U.S. or its territories, or be lawfully admitted to the U.S. for permanent residence
- EPA-F2009-STARI1 – Green Engineering/Building/Chemistry/Materials
 - Interests in and investigations on the social science and economics of sustainability, pollution, prevention, waste reduction, green engineering, green chemistry, green materials, recycling, and resource conservation; green buildings
- There are several other areas of interest, more related to the environment; please see RFA for those areas
 - Applicants must identify a single topic and FON

Smart Grid Investment Grant Program

FOA # DE-FOA-0000058

- Letter of intent due date (required for each phase in which an applicant intends to submit an application) and application due date:
 - ~~Phase 1: July 16, August 6~~
 - Phase 2: October 23, November 4
 - Phase 3: February 10, March 3
- Funding
 - \$3.4 billion expected to be available
 - 2 categories to be funded:
 - Smaller projects in which the federal share is in the \$300,000 to \$20 million range (40% of SGIG funding)
 - Larger projects in which federal share is in the \$20 million to \$200 million range (60% of SGIG funding)
 - Minimum 50% cost share required
- 3 year period of performance
 - DOE expects to complete award of projects by September 30, 2010 and to make awards in October 2009, March 2010, and June 2010
 - Costs of awards must be invoiced and paid by September 30, 2015
- Eligible applicants
 - Electric power companies (investor-owned utilities, municipal utilities, public utility districts, electric cooperatives, regional organizations such as independent system operators, transmission organizations, and national-level utility organizations), state, county, local, or municipal government agencies, universities and colleges, electricity consumers singly or aggregated together (residential, commercial, industrial, and agricultural customer classes), appliance manufacturers, electrical equipment manufacturers, software providers, and commercial and information services providers, and other private companies (retail electricity suppliers, energy services companies, independent power producers, demand response services providers, metering services providers, project developers, electricity marketers, consultants)
 - Federal agencies, including power marketing administrations, TVA, and USPS are eligible in supporting roles only
 - DOE's national laboratories and FFRDCs are ineligible

- Purpose of program: to accelerate the modernization of the nation's electric transmission and distribution systems, and to promote investment in smart grid technologies, tools, and techniques which increase flexibility, functionality, interoperability, cyber-security, situational awareness, and operational efficiency; to enable measurable improvements from accelerated achievement of a modernized electric transmission and distribution system, including:
 - Reliability of the electric power system
 - Electric power system costs and peak demand
 - Consumer electricity costs, bills, and environmental impacts
 - Clean energy development and greenhouse gases
 - Economic opportunities and new jobs
- Topic areas:
 - Equipment manufacturing
 - Customer systems
 - Advanced metering infrastructure
 - Electric distribution systems
 - Electric transmission systems
 - Integrated and/or crosscutting systems
- Eligible projects are required to support or advance one or more of the smart grid functions as listed in EISA Section 1306 (d)
- For eligible investments for SGIG funds, see EISA, Section 1306 (b)
- For non-eligible investments, see EISA, Section 1306 (c)
- Visit <http://www.fedconnect.net/> for additional information

Small Business Technology Transfer Program Phase I Solicitation FY 2010 (STTR)

- Proposal due: November 17, 2009
- See <http://www.nsf.gov/pubs/2009/nsf09605/nsf09605.pdf> for additional information
- 35 estimated awards, pending availability
- Proposals may be submitted for funding of up to \$150,000
- Cost share not required
- 1 year period of performance
- Eligible applicants: U.S. commercial organizations, especially small businesses with capabilities in scientific or engineering research or education
- The primary objective of the STTR Program is to increase the incentive and opportunity for small firms to undertake cutting edge, high risk, high quality scientific, engineering, or science and engineering education research that would have a high potential economic payoff if the research is successful.
- STTR requires researchers at universities and other research institutions to play a significant intellectual role in the conduct of each STTR project. University researchers should join forces with a small company to spin off their commercially-promising ideas while they remain primarily employed at the research institution.
- Proposers will conduct research and development (R&D) on projects that:
 - Provide evidence of a commercially viable product, process, device, or system, and
 - Meet an important social or economic need

Annual Phase I Small Business Innovation Research (SBIR) Small Business Technology Transfer (STTR)

- FOA #: DE-FOA-0000161
- Application due November 20, 2009
- See <http://www.fedconnect.net/> for additional information
- Objectives of programs: To increase private sector commercialization of technology developed through DOE-supported research and development (R&D), stimulating technological innovation in the private sector, and improving the return on investment from federally-funded research for economic and social benefits to the nation
- Difference between SBIR & STTR: STTR grants must involve substantial cooperative research collaboration between the small business and a single research institution
- Applicants: Only U.S. small business concerns (SBCs); joint ventures may apply, provided entity also qualifies as a small business. See FOA for definitions of SBCs.
- \$36 million expected to be available for Phase I awards
 - \$100,000 ceiling, no floor
 - 360 expected awards
- 9 month period of performance, with start date in June 2010
- Cost share not required, but permitted
- Research or R&D must be performed in U.S.

- *Phase I*
 - Grants in FY 2010 for small businesses, up to \$100,000
 - Program to evaluate the scientific or technical merit and feasibility of ideas that appear to have commercial potential and/or substantial applications in support of DOE mission research facilities
 - Success in Phase I is prerequisite to Phase II support

- *Phase II*
 - Principal R&D effort
 - Only previous Phase I grantees are eligible
 - Grants up to \$750,000

- *Phase III*
 - Non-SBIR capital to be used by small business to pursue commercial applications of the R&D

ARRA – Workforce Training for the Electric Power Sector

- Funding Opportunity Announcement (FOA) #: DE-FOA-0000152
- Application due November 30, 2009
- Total of \$100 million expected to be available
- Eligible applicants: all domestic entities, except for other federal agencies, Federally Funded Research & Development Center Contractors, and non-profit organizations as described in section 501(c)(4) of the Internal Revenue Code of 1986 that engaged in lobbying activities after December 31, 1995.
- Up to three year period of performance
- See <http://www.fedconnect.net/> for additional information
- Objective: to facilitate the development of a well-trained, highly-skilled electric power sector workforce

- *Topic A: Developing and Enhancing Workforce Training Programs for the Electric Power Sector*
 - Develop new training programs for the electric power sector, with the focus on achieving a national, clean-energy smart grid
 - Includes the entire electricity delivery system (transmission & distribution), and related electrical equipment manufacturing
 - Applicant must:
 - Identify skills deficiencies that will be addressed
 - Demonstrate familiarity with the electric power system and needed skills sets
 - Be able to support specialized training
 - Demonstrate the ability to/discuss approach/plan to:
 - Establish and maintain strong partnerships with electric power companies and/or smart grid technology manufacturers and demonstrate how these partnerships will enhance national training efforts
 - Enhance transportability of credentials geographically and within all segments of the industry
 - Expand training capacity
 - Build awareness about training programs and smart grid careers
 - Maintain effective relationships with state agencies, local communities, and other stakeholders to help shape future training partnerships
 - Up to \$750,000 (federal share) per award
 - 25-35 awards total, including subtopic award
 - 20% cost share required, except for academic institutions (no less than 10% cost share required)

- *Subtopic (within Topic A): Strategic Training & Education in Power Systems (STEPS)*
 - Applications for STEPS to be evaluated separately from Topic A
 - Objective: to support educators at universities and colleges in developing new curriculum and training activities related to the achievement of the next-generation electric power workforce with solid technical understanding and innovativeness to address energy challenges
 - Applications may include the development of certificate programs for training technicians and teachers in science, technology, engineering, and math, with focus on electric power systems
 - Up to \$2.5 million (federal share) per award
 - 8-10 awards expected
 - 20% cost share, except for academic institutions (no less than 10% cost share accepted)

- *Topic B: Smart Grid Workforce Training*
 - To provide training for electric power sector personnel, including electricity delivery system (transmission & distribution) and related electrical equipment manufacturing
 - Individuals eligible for training include workers that:
 - Increase workforce capacity and capability of electric power companies and smart grid technology manufacturers to implement ARRA electricity-related activities
 - Address skills shortages in the power sector, especially in the area of transmission planners, system operators, utility energy efficiency staff, lineworkers, electricians, and technicians
 - Need updated training to support a national clean-energy smart grid
 - Applications should include commitment letters from electric power companies, labor organizations with qualified apprenticeship programs, and/or smart grid technology manufacturers
 - Up to \$5 million (federal share) per award
 - 15-20 awards expected
 - 50% cost share

CHE-DMR-DMS Solar Energy Initiative

- Preliminary proposal due December 8, 2009
- Full proposal due March 10, 2010
- See <http://www.nsf.gov/pubs/2009/nsf09604/nsf09604.pdf> for additional information
- 3-10 expected awards at \$500,000/year; anticipated total funding for program is \$7 million
- Cost sharing not required
- Purpose: to support interdisciplinary efforts by groups of researchers to address the scientific challenges of highly efficient harvesting, conversion, and storage of solar energy
- Research will investigate novel methods for solar energy harvesting and conversion with potential efficiency substantially beyond the current technology
- Eligible applicants: universities or two- or four-year colleges accredited in and having a campus in the U.S., acting on behalf of faculty members
 - There must be 3+ co-principal investigators: 1 researcher in chemistry, 1 researcher in materials, and 1 researcher in mathematical sciences
- Applicants should ensure the project doesn't overlap other ongoing federally-funded research projects

7th Annual P3 Awards: A National Student Design Competition for Sustainability Focusing on People, Prosperity, and the Planet

- Application due: January 4, 2010
- See <http://www.epa.gov/P3/> or <http://www.grants.gov/> for additional information
- 40 awards expected for Phase 1; 6 awards expected for Phase 2
- \$850,000 available for all awards
- Up to \$10,000 available per Phase 1 grant
- Can apply for Phase 2 funding upon successful completion of Phase 1 for up to \$75,000 for 2 more years
- Eligible applicants: Public non-profit and private non-profit institutions, limited to degree-granting institutions of higher education located in U.S.
 - Partnerships with industry or nongovernmental agencies are strongly encouraged
 - Students on teams must be enrolled in the institution
 - Eligible non-profits also include research institutions, corporations, or foundations that are part of a U.S. institution of higher education
 - Interdisciplinary teams, including representatives from multiple engineering departments and/or departments of chemistry, architecture, industrial design, business, economics, policy, or social science are strongly encouraged
- Purpose: to research, develop, and design solutions to real world challenges involving the overall sustainability of human society
- P3 program will generate research outputs in the form of innovative, inherently benign, integrated, and interdisciplinary designs that will advanced the scientific, technical, and policy knowledge necessary to further the goals of sustainability
- Desired outcomes: to maintain or improve human health, advance economic competitiveness, and protect and preserve the environment by effectively and efficiently using water, materials, and energy, and minimizing the generation, emission, and use of hazardous substances
- Phase 1 research areas for students:
 - Identify the technical challenge to sustainability that their design will address
 - Discuss how the identified technical challenge relates to people, prosperity, and the planet
 - Propose a scientifically-based design approach to address the challenge
 - Propose an approach to communicate relevant data and info to users and stakeholders
- Projects must be science-based research or development
- See FOA for research plan requirements
- Must address 1 or more research areas:

- *Energy – FOA #: EPA-G2010-P3-Q1*
 - Reduction in air and water emissions through innovative strategies for energy production and energy distribution; energy conservation; inherently benign energy through green chemistry, green engineering
- *Built Environment – FOA # EPA-G2010-P3-Q2*
 - Green building designs; transportation and mobility strategies; smart growth approaches that result in environmental benefits such as air emission reductions or water quality improvements
- *Materials & Chemicals – FOA # EPA-G2010-P3-Q3*
 - Materials conservation; renewable feedstock; materials and chemicals that are inherently benign; energy-, water- and material-efficient through their full life cycles; recovery and reuse of materials through product, process, or system design
- *Agriculture – FOA # EPA-G2010-P3-Q5*
 - Productive use of agricultural wastes